

(12) UK Patent Application (19) GB (11) 2 315 794 (13) A

(43) Date of A Publication 11.02.1998

(21) Application No 9616236.7

(22) Date of Filing 01.08.1996

(71) Applicant(s)

Marshall's Mono Limited

(Incorporated in the United Kingdom)

Southowram, Halifax, West Yorkshire, HX3 9SY,
United Kingdom

(72) Inventor(s)

John Douglas Marshall

(74) Agent and/or Address for Service

Appleyard Lees

15 Clare Road, HALIFAX, West Yorkshire, HX1 2HY,
United Kingdom

(51) INT CL⁶

E01F 9/04

(52) UK CL (Edition P)

E1G GLN

(56) Documents Cited

GB 1384385 A

(58) Field of Search

UK CL (Edition O) E1G GLC GLH GLN GLP GLV GLW
GLY G53D G53X

INT CL⁶ E01F 9/04

WPI

(54) Traffic calming

(57) The invention provides for the calming of traffic by providing a roadway with the optical illusion of an undulating surface, for example by providing rows 10, 11 of blocks in a wave pattern. This has a psychological effect on the majority of drivers, causing them to slow down. For the few who do not slow down, there is no possibility of vehicle damage or excessive noise, because the undulating surface is imagined, and not real. The surface may be provided using paint or a stick on surface layer. Alternating stripes may be of different colours.

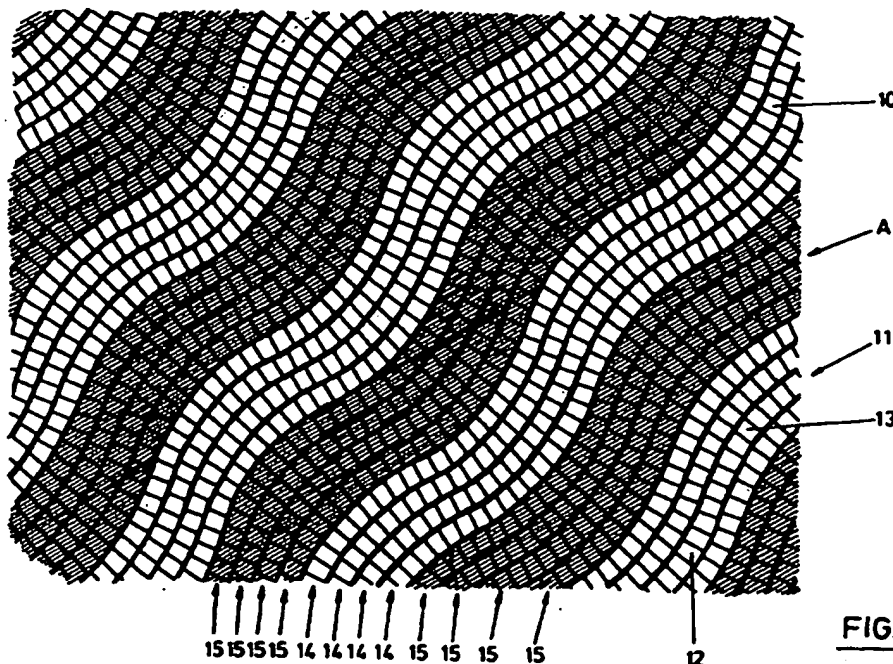


FIG. 1

GB 2 315 794

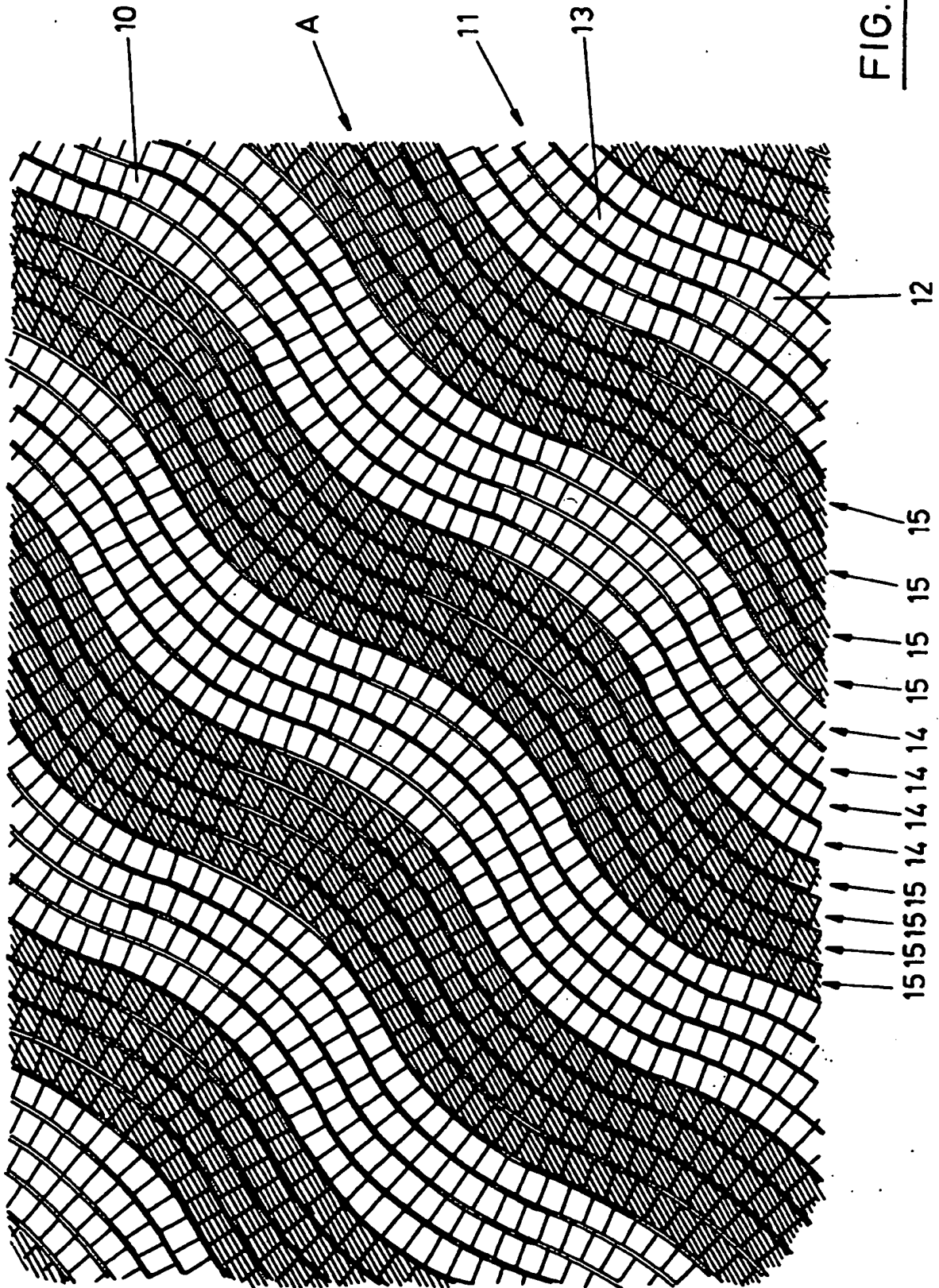


FIG. 1

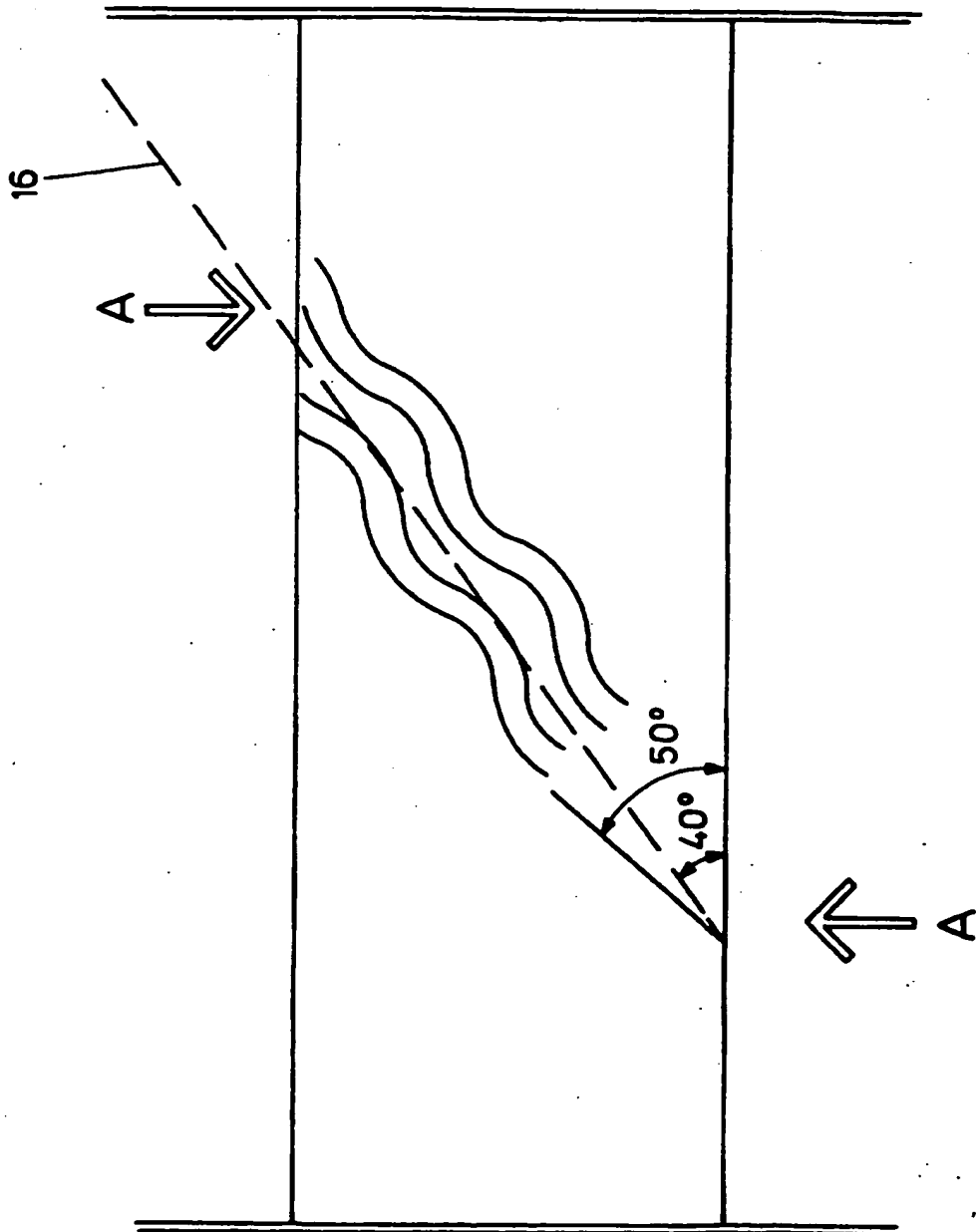


FIG. 2

METHOD AND APPARATUS FOR TRAFFIC CALMING

The invention relates to traffic calming.

5 There are now many instances in which there is a need to provide for traffic calming, for example when approaching junctions or roundabouts, or when traffic is passing through residential areas.

10 Present arrangements involve the use of a physical barrier or obstruction, including bollards to divert the flow of traffic, sleeping policemen and rumble strips.

15 The known arrangements have disadvantages, including the fact that substantial additional construction work may be necessary and excessive noise or vehicle damage may result if traffic still travels at a high speed.

20 According to the invention, a method of calming traffic is provided in which a roadway is treated to provide the optical illusion of an undulating surface. This has a psychological effect on the majority of drivers, causing them to slow down. For the few who do not slow down, there is no possibility of vehicle damage or excessive noise, because the undulating surface is imagined, and not real.

25 For the same reason, relatively little extra work is required to construct the roadway, or treat a section of existing roadway.

Preferably, the optical illusion is created by providing a series of visual wave patterns on the surface of the roadway.

The invention also provides a section of roadway which has been arranged or treated to give the optical illusion of an undulating surface.

5 Preferably the roadway is provided with a series of wave patterns thereon.

The wave patterns may be provided by laying roadway blocks in a wave pattern.

10 Alternatively, or in addition, the surface of the roadway may be provided with a surface having a wave pattern.

15 The wave pattern may be provided in any desired manner, for example using paint, a stick on surface layer, or differently shaped or coloured blocks.

The paint may comprise road marking paint.

20 According to one preferred embodiment, roadway blocks are laid in a wave pattern, but wave stripes are also provided, alternating stripes being of a different shade or colour. For example grey blocks may alternate with red blocks.

The width of the stripes may vary.

25 The stripes may for example be 0.25 to 0.75 metres wide. A preferred width is 0.5 metres.

Preferably the waves run at an angle to the direction of traffic flow.

The angle may lie between 35° and 55°.

A preferred angle lies between 40° and 50°.

5 By way of example, a specific embodiment of the invention will now be described, with reference to the accompanying drawing in which :-

Figure 1 is a plan view of a section of roadway according to the embodiment; and

10

Figure 2 is a diagrammatic plan view illustrating the angle of the wave direction.

15 The road surface shown in plan in Figure 1, is constructed using a plurality of roadway blocks 10. Each block has a slight wedge shape when viewed in plan.

20 These blocks can be used to create very clear wave patterns, as can clearly be seen in Figure 1. To take the blocks in row 11 for example, some of the blocks indicated at 12 are positioned with their narrower ends to the left, as viewed in the figure, to create a convex curve, and then further on in the row, at 13, the blocks are placed with their wider ends to the left, to create a concave curve. The process can be continued over the whole area to be treated, so that each row of blocks adopts a sinusoidal wave shape.

25

Not only are the blocks laid in a wave pattern, but rows of blocks of one colour alternate with rows of blocks of another colour to provide alternating wave shaped stripes. Thus, for example, four rows of grey blocks

145 have four rows of red blocks 15 on each side thereof. This pattern repeats across the entire surface being treated.

5 The road surface shown in Figure 1 is no different to travel over than a normal surface, but if a vehicle approaches the road section, for example in the direction of arrow A, the vehicle driver receives a quite pronounced impression that the road surface undulates in a way which suggests to the driver that unless the vehicle speed is very slow, the vehicle will experience severe vibration and this has the effect of causing most drivers to reduce their
10 speed.

Although the stripes shown in Figure 1 have been created by using blocks of different colours, it is also possible to create the stripes by treating the surface of the blocks, for example with paint, or stick on coatings.

15

The stripes shown in Figure 1 each have a width substantially equally to 0.5 metres. However, other widths are possible and for any given road section, the width can be selected to provide the most effective results for that particular site.

20

The invention has been found to be particularly effective when the waves run in a direction which is inclined to the direction of traffic flow. This is well illustrated by the diagrammatic plan view of Figure 2, in which the direction of traffic flow is indicated by the arrows A.

25

The waves, being sinusoidal, have a base line indicated by the dotted line 16 and in this embodiment the angle of the base line 16 to the direction of traffic flow is 50°. However, other angles are possible, although it has

been found that particularly effective results are achieved where the angle lies between 40° and 50°.

5 The reader's attention is directed to all papers and documents which are filed concurrently with or previous to this specification in connection with this application and which are open to public inspection with this specification, and the contents of all such papers and documents are incorporated herein by reference.

10 All of the features disclosed in this specification (including any accompanying claims, abstract and drawings), and/or all of the steps of any method or process so disclosed, may be combined in any combination, except combinations where at least some of such features and/or steps are mutually exclusive.

15 Each feature disclosed in this specification (including any accompanying claims, abstract and drawings), may be replaced by alternative features serving the same, equivalent or similar purpose, unless expressly stated otherwise. Thus, unless expressly stated otherwise, each feature
20 disclosed is one example only of a generic series of equivalent or similar features.

25 The invention is not restricted to the details of the foregoing embodiment(s). The invention extends to any novel one, or any novel combination, of the features disclosed in this specification (including any accompanying claims, abstract and drawings), or to any novel one, or any novel combination, of the steps of any method or process so disclosed.